EFFECT OF YOGA ON CARDIOVASCULAR EFFICIENCY

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ABSTRACT

The purpose of this study was to investigate the effects of yogic practices on cardio-vascular efficiency. ***Material and methods:*** *Total Forty (40) subject's boys/girls were selected as the sample of the study through the random sampling and their age ranged between 20 to 25 years from the Department of Physical Education, Aligarh Muslim University, Aligarh. The subjects were divided into two groups comprising 20 subjects in each group, namely group "A" (the experimental group) performs yogic practices (Asanas, Pranayamas and Kriyas) and group "B" (the control group) served as control.* ***Statistical technique:*** *for the assessment of the cardiovascular efficiency through Harvard step test pre and post-test was conducted and t-test was applied for the analysis.* ***Result:*** *revealed that there exist a significant difference between group A and group B, at .05 level of significance. On the basis of the pre and post-test among experimental and control group, experimental group found better than the control group on cardiovascular efficiency and significant result were found in this study.*

Key Words: *Cardio-vascular efficiency and Yogic practices*

INTRODUCTION

Man has made tremendous progress in almost every walk of the life. Modern scientist and researchers have absolutely changed the lifestyle. However pollution of air, water and others also is the result of the science. Longing for material wealth has hardened the hearts of human beings. Human values are declining. Strain and stress are cause of physical as well as mental distraction Yoga has the surest remedies for men's physical, physiological as well as psychological elements. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body.

The practice of yoga had proved to be of great help in the treatment of certain ailment as shown by the scientific investigation carried out in India and elsewhere. It is a way of achieving perfect health of all parts of the body and influencing breathing and other functions going in it and through them bringing

a perfect harmony in mental and physical activities. It helps to prepare a healthy body and mind in such a way that a necessary equilibrium is established in over all functions.

Cardiovascular efficiency is the ability of the heart, lungs working muscles to quickly come to normal position after an exhausted physical labour. It may be defined as the ability of the heart and lungs to take in and transport adequate amounts of oxygen to the working muscles, for activities that involve large muscles masses to be performed over long periods of time for example running, swimming and bicycling activities involve large muscles. (Fox. et. al. 1988)

Feuresteen, G. (2001) says that Yoga has been practiced in India for thousands of years, and is traditionally used by spiritual seekers as a system of self-development for purification of the body and mind.

Ornish Dean (1996), Indeed, much to the astonishment of western scientist accomplished yogis have demonstrated that they can exert conscious control of heart rate, blood pressure, respiratory rate and even the circulation of the blood.

(Gore, M. M. 1980), as emotions often reflect in the body, asanas provide a means to deal with the emotional blocks and character logical muscle tensions. A regular practice of asanas may be helpful to change the disposition and attitudes that lead to adjustment in life.

Krishnan, A. (1991) observed that due to the selected bhartiyam exercise and yogic practices pulse rate was decreased significantly and breath holding time, cardiovascular efficiency and vital capacity improved significantly. The breathing practices of yoga can help improve lung capacity and posture, and harmonies the body and mind.

Hypothesis:

It was hypothesized that yogic practices would be effective to improve cardio vascular efficiency.

METHODOLOGY

Selection of the subjects: The purpose of this study was to find out the effects of selected yogic practices on cardiovascular efficiency. Total 40 boys were sel-

ected for this study, 20 control group 20 experimental groups who were the students in the Department of Physical Education AMU Aligarh was randomly selected between the age group of 20 to 25 years.

Test Administration: For the assessment of the cardiovascular efficiency the researcher has chosen to go through with the Harvard step test. The subject was well taught prior about the worth and the value of the study a pre data was recorded and subjects were practiced the yogic exercises for 6 weeks after which the post data has been recorded.

Training Programme

Asanas	Pranayama and Kriyas
Sarvangasana	Anilom vilom
Bhujangasana	Kapalbhati
Dhanurasana	
Pawanmuktasana	
Vajrasana	
Makrasana	
Tadasana	
Shirsasana Halasana	
Shavasana	

ANALYSIS OF DATA AND RESULTS OF THE STUDY

The score of individual was recorded by Harvard step test and after the performance pulse was counted thrice before and after training programme.

Findings

The mean gain and losses of group A and group B presented in Table-1.

Table-1
Group Mean Difference in Performance on Cardiovascular Efficiency after Six Week Training

Group	M1	M2	M2-M1	S.E. difference	t ratio
A (experimental)	94.49	112.10	17.60	3.73	4.988*
B (control)	91.65	90.56	-1.99	.34	

***Significance at the .05 level of confidence.**

Table-2
Group Mean Difference in Performance on Cardiovascular Efficiency after Six Week Training

Group	Mean	Mean Difference	S.E. Difference	t ratio
A (experimental)	17.60	16.51	3.39	4.98*
B (control)	-1.09			

***Significance value at 0.05 level of confidence.**

Discussion of Findings:

A healthy circulatory system goes a long way to preventing a number of life threatening diseases. Maintaining cardiovascular fitness can help to prevent many of the death causing accidents.

The cardiovascular efficiency generally can be referred to as the efficiency with which the human body can distribute blood and oxygen. It is a measure of the performance capacity of circulatory system. It can be generally measured by counting number of beats per minute, and calculating the maximum volume of oxygen that is taken by an individual during exercise condition.

The results of the study as mentioned in the table no 1 and table no 2 reveals that there was a significant difference in the heart rate of experimental group as compared to control group at .05 level of the confidence. The experimental group has the lower heart rate than the control group. This significant improvement in the performance of the subject is being caused by the regular practice of six weeks yoga training programme has improved their cardiovascular efficiency rather than control group who have not participated in any of the physical activity or training programme. Decrease value of heart rate is being reported by Gharot, M. L. and Ganguly, S. K. (1973), Nandi, S. and Adhikari, H. (1999), Tripathi, R. Bhagirathi, S.E. and Pathak, A.(2005) in their findings.

Regular exercise conditions your heart and allows it to pump the blood throughout your body more efficiently. While any and all exercise can help to strengthen your cardiovascular functioning. Yoga exercises particularly improves cardiovascular efficiency, endurance and strength. Yogic activity that contributes to optimal health of your cardiovascular system includes doing some type of repetitive asanas, pranayamas, and kiryas, which keeps your heart, and lungs work more efficiently.

This shows clearly that there is correlation between our cardiovascular efficiency and yogic practices like asanas, pranayama and kiryas.

Conclusion

Within the limitation of the present study following conclusions were drawn.

1. The cardiovascular efficiency can be improved by asanas, pranayama and kiryas.
2. Evidence has been found to indicate statically significant in cardiovascular efficiency at .05 level of confidence.

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